

Amendments to the Abstract:

Please replace the Abstract with the attached Abstract.

ABSTRACT

A system for damping thermo-acoustic instability in a combustor device for a gas turbine, the combustor device including at least one combustion chamber, in particular of an annular type, and at least one burner associated to the combustion chamber and mounted in a position corresponding to a front portion set upstream of the combustion chamber; the damping system including at least one Helmholtz resonator including a casing defining inside it a pre-set volume and a neck for hydraulic connection between the pre-set volume and the combustion chamber, the neck being connected to one side of the combustion chamber at a distance from the front upstream portion thereof provided with the at least one burner. The casing of the resonator includes structure which varies the pre-set volume within a pre-set range and structure which delivers a cooling fluid.